

**Table 23*****Pollutant Trends in Bay/Delta Estuary Sediments and Biota***

<b>Pollutant</b>	<b>Trends in Sediments</b>	<b>Trends in Biota</b>
Arsenic	Few sites highly contaminated. Data unavailable to determine geographic or temporal trend. (2)	Data unavailable to determine geographic or temporal trend. (2)
Cadmium	Ubiquitous in the Bay; patchy distribution. Possible increasing concentration from north to south. Highest concentrations in South Bay. Slight decrease in mean sediment concentrations since mid-1970s. (3)	Concentrations in mussels fairly uniform among various basins of S.F. Bay. Highest concentrations in South Bay. Possible general pattern of slightly decreasing concentrations in mussels during the 1980s. Wide variation in concentrations in biota from year to year. (3)
Chromium	Spread throughout system. Concentrations higher in basins than on periphery. Highest levels in San Pablo Bay. No temporal trend apparent. (3)	<b>Concentrations in mussels highest in Central and South bays.</b> There are no Bay-wide temporal trends apparent among mussels. (3)
Copper	Spread throughout system. Concentrations higher on periphery than in basins. Data unavailable to determine temporal trend. (3)	Appears to be in similar concentrations in bivalves throughout S.F. Bay; very patchy distribution. Mean concentrations similar in basins and peripheral areas, but highest levels occur in peripheral areas. No temporal trends in concentrations in biota are apparent. (3)
Lead	Spread throughout system at low concentrations. Concentrations highest on peripheral areas. No temporal trend apparent. (3)	<b>Concentrations in mussels highest in peripheral areas.</b> Concentrations in mussels highest in Central Bay and South Bay. Data unavailable to determine temporal trend. (3)
Mercury	Patchy distribution. Concentrations higher in peripheral areas. Highest mean concentrations on South Bay periphery. No temporal trend apparent. (1, 3)	Concentrations fairly uniform in biota throughout S.F. Bay. <b>Highest levels in biota of South Bay.</b> No significant temporal trend of increasing or decreasing concentrations. (3)
Nickel	Increasing concentrations from north to south. Highest concentrations in South Bay. No temporal trend apparent. (1)	<b>Concentrations elevated in mussels from Carquinez Strait area and in clams from South Bay.</b> In general, levels in biota poorly characterized. Data unavailable to determine temporal trend. (2)
Selenium	Few data available. Concentrations 3-44x than that in shales. Highest concentration in San Pablo Bay. Data unavailable to determine temporal trend. (2)	<b>Concentrations in shellfish highest in northern and southern reaches of S.F. Bay. Concentrations in ducks in South Bay and Suisun Bay are comparable to ducks from Kesterson National Wildlife Refuge that had reproductive problems.</b> Recent increase in concentrations in North Bay scaup and sturgeon. (1,4)
Silver	Increasing concentrations from Delta to South Bay. Highest concentration in Central and South bays. No temporal trend apparent. (1, 3)	Concentrations in shellfish increase along gradient from Delta to South Bay. No significant temporal trend of increasing or decreasing concentrations in biota. (1, 3)
Tributyltin	Concentrations highest at marinas and harbors. No temporal trend apparent. (1)	<b>Concentrations of TBT are highest in marinas and harbors throughout the estuary;</b> however, data are unavailable to determine geographic and temporal trends in concentrations in biota. (2)
Zinc	Concentrations generally moderate and, with few exceptions, fairly uniform. Highest concentrations at sites in Central and South bays. No temporal trend apparent. (1, 2)	Concentrations in biota are moderately elevated. Highest concentrations occur in biota inhabiting peripheral areas of Central and South bays. High concentrations in Sacramento River water above the estuary cause mortality in young salmon. Data unavailable to determine temporal trend. (1, 2)
PAH	Concentrations higher in peripheral areas. Data unavailable to determine temporal trend. (3)	<b>Concentrations in mussels highest in South Bay.</b> Concentrations in fish highest in East Bay and lowest in San Pablo Bay. There is no apparent temporal trend in concentrations in biota. (3)
DDT	Concentrations higher in peripheral areas, with few exceptions. Data unavailable to determine long-term temporal trend. (3)	<b>Concentrations in clams historically highest in Suisun Bay and Delta biota;</b> lowest in San Pablo Bay. Concentrations in fish relatively similar at various sites, but somewhat lower in San Pablo Bay than in Delta. Concentrations in oysters, clams, and mussels have declined steadily since early 1980s. Possible decline in concentrations in striped bass. (3)
PCB	Widespread in system. Concentrations higher in peripheral areas. Concentrations lowest in San Pablo Bay. Data unavailable to determine temporal trend. (3)	<b>Concentrations in clams and bottomfish highest in eastern Central Bay and in South Bay.</b> Concentrations in San Pablo Bay typically low. There was an apparent peak in PCB levels in mussels in 1981, then a decline to current levels. Data are insufficient to determine trends in other biota. (3)

Sources: (1) SWRCB, 1990; (2) Phillips, 1987; (3) Long et al., 1988; (4) DFG, 1991